

Applicants: Yousuke TAKAHAMA et al.
Appl. No.: 09/889,321

1. (Currently Amended) A method of acquiring immunological tolerance to a foreign DNA and/or its expression product ~~characterized in that~~ comprising:
providing an immature T lymphocyte transfected with the foreign DNA;
introducing the immature T lymphocyte is transferred into thymus mediated by fetal T lymphocytes.
2. (Currently Amended) ~~A~~ The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 1, ~~characterized in that a foreign DNA-~~
~~transferred fetal~~ comprising:
providing an immature T lymphocyte is introduced into thymus and said transfected with
the foreign DNA;
introducing the immature T lymphocyte into thymus and subsequently expressing said
foreign DNA is expressed in thymus organ.
3. (Currently Amended) ~~A~~ The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 1, ~~characterized in that~~ wherein the foreign DNA ~~is DNA which~~ comprises at least ~~comprises~~ a gene coding ~~for~~ a substance causing allergic diseases or a substance causing auto-immune diseases.
4. (Currently Amended) ~~A~~ The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 1, ~~characterized in that~~ wherein the foreign DNA ~~is DNA which~~ comprises at least ~~comprises~~ a gene encoding for a peptide used for therapeutic medicament.

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5. (Currently Amended) ~~A~~The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 1, ~~characterized in that wherein~~ the foreign DNA is ~~DNA which at least~~ comprises at least a gene and a vector.

6. (Currently Amended) ~~A~~The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 5, ~~characterized in that wherein~~ the vector is a viral vector for transferring a foreign gene.

7. (Currently Amended) ~~A~~The method of acquiring immunological tolerance to a foreign DNA and/or its expression product according to Claim 6, ~~characterized in that wherein~~ the viral vector is a vector derived from retrovirus, adenovirus, or lentivirus.

8. (Currently Amended) A method of sustaining a gene therapeutic effect in gene therapy comprising: characterized in that
providing an immature T lymphocyte transfected with the foreign gene; and
introducing the immature T lymphocyte a foreign DNA in gene therapy is transferred into
a thymus mediated by fetal T lymphocytes.

9. (Currently Amended) ~~A~~ The method of sustaining a gene therapeutic effect and avoiding immune response caused by a foreign DNA and/or its expression product in gene therapy according to Claim 8, ~~characterized in that comprising:~~
providing an immature T lymphocyte transfected with the foreign gene; and
introducing the immature T lymphocyte into thymus and subsequently expressing said
foreign gene immune response caused by a foreign DNA and/or its expression product is avoided
by introducing a foreign DNA-transferred fetal T lymphocyte in gene therapy into thymus, and
by expressing a foreign DNA in thymus organ.

10. (Currently Amended) ~~A~~The method of sustaining a gene therapeutic effect in gene therapy

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according to Claim 8, ~~characterized in that~~ wherein the foreign DNA is ~~DNA which at least~~ comprises at least a gene and a vector.

11. (Currently Amended) ~~A~~The method of sustaining a gene therapeutic effect in gene therapy according to Claim 10 ~~characterized in that~~ wherein the vector is a viral vector for transferring a foreign gene.

12. (Currently Amended) ~~A~~The method of sustaining a gene therapeutic effect in gene therapy according to Claim 11 ~~characterized in that~~ wherein the viral vector is a vector derived from retrovirus, adenovirus, or lentivirus.

13. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product characterized in that the foreign DNA is transferred into thymus mediated by fetal T lymphocytes.

14. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 13, characterized in that a foreign-DNA-transferred fetal T lymphocyte is introduced into thymus and said foreign DNA is expressed in thymus organ.

15. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 13, characterized in that the foreign DNA is DNA which at least comprises a vector.

16. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 15 characterized in that the vector is a viral vector for transferring a foreign gene.

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17. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 16 characterized in that the viral vector is a vector derived from retrovirus, adenovirus, or lentivirus.

18. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 13, characterized in that the non-human animal belongs to rodents.

19. (Withdrawn) A non-human animal that has acquired immunological tolerance to a foreign DNA and/or its expression product according to Claim 18 characterized in that the non-human animal which belongs to rodents is a mouse.